THE SCHOOL OF EXPERIMENTAL ECOLOGY (SEE)

PROGRAM OF NURSERY SCHOOL EDUCATION FOR CHILDREN THREE TO SIX

SEE was founded and incorporated as a school in Oregon in 1981 by John David Garcia. SEE's sole goal from the start was to discover what environmental factors - physical, biological, and psychosocial would help children and adults maximize their creativity. It was this ecology with which SEE experimented.

The concept of "creativity" as used by SEE refers to any act which increases truth in any way for at least one person, including one's self, without decreasing truth for any person, including one's self.

"Truth" is any information that increases our intelligence or ethics without decreasing anyone else's intelligence or ethics.

"Intelligence" is our ability to predict and control our total environment - physical, biological, and psychosocial.

"Ethics" are the set of rules that we follow to make sure that we use our intelligence to best maximize intelligence, including our own, and not to diminish anyone's intelligence, including our own.

Intuitively, creativity is the process by which we discover scientific laws, invent machines, produce works of art, and nurture and teach others, as well as ourselves, to do these same things. The most creative thing we ever do for ourselves is to help another maximize his or her creativity.

These notions of creativity lead to the following summary of what is ethical:

(1) Any act or person that increases anyone's creativity, without decreasing anyone else's creativity is an ethical act, or it is an example of a person behaving ethically at that time.

(2) Any act or person that decreases any person's creativity, in any way, is an unethical act, or is an example of a person behaving unethically at that time.

These notions of creativity and ethics lead to a natural, scientific ethics that is in complete harmony with Judaeo-Christian ethics in general and modern science in particular. We call this system of ethics

"The Evolutionary Ethic" because it grows naturally and logically out of the scientific facts that are known about the process of evolution, about which we still have a lot to learn. The Evolutionary Ethic is that We must do our best to maximize creativity without ever decreasing anyone's creativity.

The Evolutionary Ethic can be used scientifically and rationally to optimize any social science or process. This is particularly true about how best to educate our children and ourselves.

Traditional educational systems, throughout the world, emphasize learning how to regurgitate information exactly as it was given to us. This requires intelligence, but not ethics. These same systems seem to destroy imagination and creativity in children. Almost all children enter primary school still highly imaginative and creative, but they usually leave high school devoid of imagination and creativity. Something in the traditional educational process destroys the children's imagination and creativity.

After many years of working with these concepts and doing experiments with thousand of persons of all ages SEE has come to the following conclusions:

Creativity (C) is produced by an interaction of Intelligence (I) and Ethics (E). This interaction may intuitively be expressed, in its simplest form, by the equation, C = IE.

In trying to maximize anyone's creativity, it is more important to maximize their ethics than their intelligence, because, although Intelligence (I) is always positive, Ethics (E) can be negative, thereby giving us negative Creativity (C). Negative Creativity is what we call "destructiveness." Negative Creativity is intelligence used to diminish at least one person's intelligence and/or ethics. Positive Creativity always increases at least one person's intelligence and/or ethics, without diminishing anyone's intelligence or ethics..

Traditional schools do not diminish intelligence. Rather, they diminish, and eventually destroy, ethics by punishing creative behavior and rewarding repetitive, noncreative behavior. Thus teaching the student to value happiness more than creativity, and that happiness can be maximized by conforming to authority and never displaying any independent or imaginative thinking, since the latter usually leads to some form of punishment.

SEE has developed an educational program that not only maximizes creativity while strengthening the child's ethics, but enables the child to acquire all the traditional educational information many times faster and more coherently. This is done by teaching the child through a process of rediscovery, where all subjects are taught in the same order and context as the human race learned these things.

Instead of merely regurgitating information, the child is encouraged to use its imagination, and its own creativity, to reinvent the accumulated knowledge of humanity, in the same order and context as humanity invented and discovered this same information. This takes patience and creativity on the part of the teacher. Traditional

methods of teacher training seem to destroy creativity for the teachers and their subsequent students. Therefore SEE does things in new ways, never before tried.

Children at SEE are never punished, in any way, or forced to do what they do not wish to do. Instead they are given ever growing creative opportunities specifically tailored to their individual abilities and inclinations. These opportunities are both the intrinsic rewards for their creative actions, as well as more attractive, interesting alternatives to their destructive actions.

They are encouraged, but never forced, to cooperate with other students by learning from them and teaching them. The students can learn on their own, work with others, or just play. The teachers merely present them with opportunities to be maximally creative, and then help them realize those opportunities. No form of coercion is ever used on the students, but they are constantly given ever greater opportunities to become maximally creative at their own pace and in their own way.

The sole form of discipline to which the child is exposed at SEE is not to be destructive to him or herself or to the other students and teachers. This is done by reasoning with the child in the most loving way possible, giving creative alternatives to destructive behavior, and by consultation with the child together with his or her parents. Parents of students at SEE, must be involved in the educational process of their children.

If the child cannot desist in its destructive behavior, it will be suspended from SEE for a period appropriate to the situation. If after being readmitted to SEE, the child persists in destructive behavior, it may be expelled. SEE recognizes that it has failed with any child that it must expel for the welfare of the other students and the child itself. All children are inherently creative.

SEE has learned that almost everybody learns best in small groups of eight cooperative students who voluntarily choose to work together. These groups are optimized if they are half males and half females who have voluntarily chosen to work and study together. We call these small groups "Octets", and encourage, but never force students to form Octets of their choosing.

Because of the optimal student grouping in Octets, SEE proposes, on the average, for older students, at least one teacher for every eight students. For the nursery school students SEE has at least one full time teacher for every six full time students. SEE has an appropriate number of teachers for the part time students.

All SEE teachers are partners with SEE, ebgage in profit sharing, and earn an average income over twice as high as the average California public school teacher. SEE teachers

are chosen primarily on the basis of their ethics, creativity, love and kindness toward children, and a thorough understanding of SEE's philosophy and goals, which is also required of all parents.

SEE will provide written materials and free seminars for parents to help them understand what SEE is, what it is trying to do, and why it does what it does. Parents should become thoroughly and intensely involved with SEE in determining what is the best way to educate their children. The SEE teachers will make whatever time is necessary to interact with the parents of the SEE students.

A brief description of SEE's educational philosophy follows:

SEE'S EDUCATIONAL PHILOSOPHY

We can transform ourselves so that we are ethical, totally loving, devoid of fear, and totally creative in all our acts. But that is not enough to maximize creativity. We must also maximize our intelligence, because C = IE. We have two impediments to maximizing intelligence. The first is our own fear, which inhibits our ability to learn and forces us to specialize. The second is negative ethics and their consequent fear and destructiveness in others.

All creative persons, if they do not always treat all destructive persons with love, are susceptible to the destructiveness of others. If we increase the intelligence of unethical persons, we merely increase their ability to destroy. Even highly ethical persons, if they are too intelligent and not yet highly ethical, are occasionally destructive; their destructive acts may lead to imposing serious harm on others. Young children and ethical adults are the sole persons who are always more creative in their behavior than they are destructive. Creativity is best maximized with young children.

To maximize creativity, an educational system must take into account the relationship between ethics and intelligence. At the same time it must not inhibit the flow of information to ethical persons. A technique for accomplishing all these objectives is to create an educational system based on love in which an increase in ethics is inextricably interwoven with an increase in intelligence.

Education in secular schools is inevitably separated from any ethical considerations. In seeking to maximize solely intelligence, they minimize creativity by specialization and the destruction of ethics through conditioning by fear.

Religious schools often corrupt their ethical teachings with dogma and compulsive ritual based on fear, thereby alienating those who are scientifically and creatively oriented. As a

result, religious schools tend to produce few scientists and the least creative psychosocial specialists.

In order for an educational system to maximize creativity, as opposed to merely increase intelligence, it must have the following characteristics:

1. It must be based entirely on the evolutionary ethic.

2. It must emphasize the growth in ethics and love along with the growth in intelligence and give preference to the former over the latter when and if conflicts arise.

3. It must in no way use fear to condition the student.

4. It must encourage love and cooperativeness rather than competitiveness among students.

5. It must at all times provide the opportunity, not the obligation, for the student to generalize in all fields of knowledge, including the arts, rather than specialize in a single field. Conversely, a student must always be free to specialize by choice while being told the consequences of those actions.

6. It must provide objective feedback to the students about how well they are learning without in any way having this feedback serve as reward or punishment. Solely the act of learning is a reward. The sole punishment is not learning. The objective results are necessary solely to avoid self-delusion. The students should learn to find at least as much joy in discovering their mistakes as in discovering their successes.

7. Creative independence of the students should be encouraged and never criticized before the fact, even when it seems obvious that the student's ideas will be wrong. We learn by our mistakes, using objective feedback, which should be given solely after the students have tried their innovative ideas, under close supervision so that they do not hurt themselves or others. In this way students are encouraged to recreate the knowledge they acquire and to use their creativity. They are taught solely what they can create.

8. There should be no educational time constraints whatever on the students; they should move at the pace which is most satisfying to them. Slow students should be free to move at their pace without feeling rushed. Fast students should be free to move at their pace without feeling bogged down by others.

Many of these objectives will be accomplished simultaneously by organizing the students into voluntary, cooperative octets of four males and four females who learn as a group and decide by consensus what they should focus on next. Students should join the octet whose pace and inclination of learning is most compatible with their own. Anytime

students cannot reach consensus in their octet, or find a better octet for themselves, they may change octets.

Students who wish to work individually or in other-sized groups should also be able to do so and encouraged to change their organizational structure to whatever structure is most creative for them. It may be that the available octets are not optimal for all students at all times during their lives. Students should have an opportunity, not an obligation, to work and study in voluntary, cooperative octets. The prediction is that those who choose to work in these octets will maximize their ethics and creativity as well as their intelligence; if not, our educational methods can be changed.

Given this background, we now focus on the curriculum and the educational organization which maximize creativity. It is our intention to eventually make this curriculum and educational organization available to the maximum number of persons, regardless of their economic means, by offering work study scholarships to all parents and their older children.

A Lifetime Curriculum

The curriculum outlined in the following section is one that can be started by young children and continued into old age without being exhausted. A person wishing to maximize creativity in the shortest possible time would follow the curriculum approximately in the order given; but anyone should be able to take many different paths within this curriculum, including specializing at any time. All students would be counseled on the consequences of their actions, but encouraged to follow their own conscience by doing what seems right for them without fear of making a wrong choice.

The objective is to make the totality of human knowledge readily and easily available to as many persons as possible in such a way that, if they wish it, they are constantly maximizing their rate of growth in creativity relative to their present intellectual and ethical potential. In order to do this we plot an optimal course through the curriculum for all octets or other groupings of students and let them modify the courses according to their own personal inclinations. We also make the feedback on their progress, and that of other students, readily available to them whenever they wish it, but on a private basis so that any particular student's progress is known solely to the student and his/her counselors and parents. All other data is in statistical summaries and protects the anonymity of each student. An ethically optimal education should have no external rewards or punishments. The sole reward is to learn and become more creative. The sole punishment is not to learn.

The expectation is that, under this system, learning and creativity will be seen as among the most joyful of human experiences. There is something seriously wrong with an educational system that is loathed by its students. Students should choose to learn for the joy it brings--without fear of punishment or expectation of extrinsic rewards.

If their studies are disassociated from external reward and punishment and all students are respected for whatever choices they make, the students will optimize the curriculum for themselves. The essential requirements are to have the totality of human knowledge available and accessible at all times without extrinsic rewards or punishments associated with it. This may be done as follows:

We divide the totality of human knowledge into three primary areas, or dimensions, because human beings normally perceive the integrated whole of the cosmos as three distinct types of phenomena. These are the physical, the biological, and the psychosocial. There are many levels of knowledge within each of these dimensions that are normally associated within our archaeological and cultural history.

Indeed, what integrates the three dimensions of knowledge into a whole is the evolutionary ethic by which we see human history as a continuation of our biological evolution and biological evolution as a continuation of material evolution. Therefore, at each level the student is presented with the three distinct areas of study--plus a fourth discipline, which is an ethical evolutionary-historical-artistic integration of the first three.

Art integrates knowledge at the unconscious level. The entire program integrates knowledge by having ontogeny recapitulate phylogeny at the psychosocial level. Students learn in an order, context, and manner similar to that in which the human race learned the same material and are given an opportunity to rediscover this knowledge, under careful guidance. Everything they learn is always related to everything they know in a meaningful, practical way.

Within each of these four areas there exist side-by-side the theoretical ideas and the practice of these ideas in technology. This gives the overall structure for the curriculum which follows this section.

At each level there is artistic expression in music, literature, plastic arts, dance, humanities, and religious myth that ties all the knowledge together at the unconscious level. Therefore the students have the opportunity to learn and practice the arts appropriate to each level with the technology and science of that level. Religion is taught as a branch of anthropology. There is no religious indoctrination of any kind. But

scientific ethics, in the spirit of Spinoza and the Evolutionary Ethic, are taught and related to religious ethics at each level appropriate to the understanding of the student. The parents are encouraged to integrate SEE's ethical teachings with their own religious beliefs..

At each level the more mature students are taught by at least one teaching octet that splits the four primary areas of study among them, with one male-female pair team-teaching each of the four areas. A teaching pair is responsible for both the theoretical and the practical studies in each of the four areas. Therefore, each teaching octet must contain at least one male-female pair that is expert in each of the four dimensions: physical, biological, psychosocial, and integrative (ethical, humanistic, artistic). For younger, beginning students a single teaching pair will cover the four areas.

Each male-female team-teaching pair can effectively and optimally teach up to 16 mature students at a time. Younger children in the three to six age category have at least one teacher for every six students, or one male-female pair of teachers for every twelve students.

The day is divided into eight periods of one hour each, with the teachers teaching four periods and spending four periods in counseling, preparation, and personal research. The younger students may have periods as short as one half an hour, according to the personal needs of the student.

At the lower levels, the young students spend a considerable amount of their time in relevant play and, possibly, taking naps, according to the student's wishes. Some of the counseling is reserved for parents so that parents will not use external reward and punishment to condition students. Each teaching octet can effectively teach 64 older, more mature students.

It is predicted that the effectiveness of the teaching and the learning will be optimized if the students are organized as tracked, mutual-interest, comparable-ability student octets united by commonly shared ethics. Each octet of teachers in turn interacts cooperatively to coordinate and integrate its teaching. Eight octets of teachers, with 512 students, is probably the optimal upper limit for school size to achieve the maximum amount of diversity and choice for the more mature students. Younger students will be provided with smaller, more intimate schools with a greater focus on safety..

SEE schools themselves may go several ways: (1) emphasize a fixed rate of progress (track) and teach up to eight levels; (2) have a single level of studies with up to eight

standards of progress (tracks); or (3) have a combination of the two. Local circumstances would dictate what would be best for the students.

It is important that the students be able to move along at the rate that is best for them. Students could either choose a school that matched their rate of progress and had several adjoining levels or find a school at their level which offered the multiple rates of progress option for whatever level they wished to assume. These combinations and permutations of possibilities should be worked out by market forces and the teachers and students themselves.

Teachers can probably best teach students who match their own natural rates of progress. However, some teachers are very patient and compassionate with slow students, who learn much more slowly than the teachers did when they were at the same level. These more versatile teachers are ideally suited for schools with multiple tracking at a single level.

In the curriculum outlined below, we assume a single fast track for the brightest, quickest students, since it is these types of students who will probably first use this system. A level is a year of study for the quickest, most mature student group. These fast students would start at age three and go at the fastest possible rate. At the other extreme, very slow students could start at age eight, for example, and go at one quarter this rate. Almost the entire population would fit between these two extremes.

This approach to education would greatly accelerate the pace of learning because everything is relevant, interesting, and readily available in a loving context without fear. Everything the student learns is always related to everything the student knows.

Our best estimate, based on experiments personally conducted by the SEE staff, is that many students will learn at a 400% higher rate than in our current, classical educational system that emphasizes intelligence over creativity, and opperates on the basis of external reward and punishment, devoid of most ethical considerations. The following lifetime curriculum demonstrates an optimal educational process that catalyzes itself. Remember, the slowest students could move at one fourth this rate.

The thousands of possible variations on the following outline of the integrated education, designed to maximize creativity, can be made available to almost every human being by reducing the rate of learning in any or all of the four key areas for those who cannot or prefer not to keep up the pace as given. Up to eight rates of progress, or tracks, are feasible within this system.

The last or 13th level is an unending level which is repeated every year with new material. Once a person at any age has finished the first twelve levels, he or she may then enter the 13th level and stay there for several cycles to develop his or her creative maturity. This can replace conventional higher education for many students. The students would also be very well prepared to go on to more specialized professional education in engineering, medicine, architecture, science, humanities, art, etc., after several cycles of the 13th level. The 13th level may also have multiple tracks.

Any student may take any class at any school, and may generalize or specialize. No pressure is put on the student to conform academically. The student is simply presented with opportunities to accept or reject. The choice is always the student's. Therefore, some students may, if they wish, spend all their time studying music or mathematics and boycotting the other classes and courses. However, SEE predicts that if they are given a free choice from an early age, almost all students will choose to generalize and optimize the curriculum as outlined.

At this time SEE is considering solely a nursery school program for children between three and six years of age. This nursery school program represents the first three years of the overall SEE program for children and adults through university level studies. If there is sufficient interest, SEE will add one year at a time to the program so that all children and adults who wish it may participate in an educational process that will help them and their children become maximally creative.

The entire thirteen year program is outlined below. However, solely the first three years are currently being considered. There is no guaranty that the rest of the program will become available, but SEE will do its best to make it available, if there is interest by the students and the parents to continue with this type of education for as long as possible.

Outline Of a Lifetime Curriculum, available on request.

THE FIRST DAY OF SCHOOL AT SEE

(The balance of this essay is written jointly with Gabriela and Salvador Espinosa, both of whom have operated a SEE school for very young children)

During the first day of school, children will follow, as elected by the child, aspects of the following program according to their individual abilities and interests. The following program will be easy to follow by most mature five to six year olds. Younger children, over three years of age, will have the program individually tailored and adjusted to their own elections, interests and abilities. Children under three or over six are not accepted in this program.

7:00 AM- 8:00 AM: Parents Leave Their Children with at least one of their smiling, loving home room teachers. Parents receive a receipt signed by one of the teachers. They return the receipt when they pick up the child or sign a form to this effect.

No one, except the parent, can pick-up the child without a signed letter from the parent authorizing them to pick-up the child. At least one of the home room teachers will be responsible for the child at all times until the child is properly picked-up.

The child should have had a good breakfast before being dropped off. All the children will wear an identification badge or bracelet, provided each day by SEE, with the child's name, address, phone number, and parents' names and their alternate phone numbers.

After the child has been turned over to one of his home room teachers, the child engages in elective supervised play in a clean, orderly environment with colorful, happy illustrations on the walls. Soft music appropriate for young children is playing. In the center of the general purpose room there are cushions and quilts in a circle and materials for developing fine coordination, such as three dimensional puzzles, drawing materials, cutting and pasting materials, illustrated children's books, table games, mechanical toys and dolls. The children continue here until 8:00 AM.

Note: The first day of school is difficult for the younger children; it may be the first time that they are separated from their parents. These children usually cry a lot and they feel sad and afraid.

Teachers must be very patient, understanding, and loving toward these children, approaching them slowly and carefully and showing affection toward the child, if the child permits it. Children who reject this approach should be respected and allowed to cry. But the teacher must continue to slowly and carefully gain the trust of the child with great patience, comforting words and gestures, and much love, until the child allows him or herself to be treated with love and affection.

Children who continue to cry during the day can come the next days during the first part of the morning sessions or in the afternoons solely, thereby giving the child the necessary time to become integrated into the school. Parents may remain with the children until 8:00 AM, if they wish it, and the children need it. But it is better that parents allow the teachers to begin their work without the parents. In this way the children will learn to trust and feel safe with their teachers.

8:00 AM-8:30 AM: New soft music is put on or a soft bell is sounded. The children from each home room, which shall have, no more than twelve children, and at least one male and one female teacher, form a circle around their two or more teachers, after the

teachers and students gather up all toys and materials to produce an orderly environment.

The teachers place a red candle in the center of the circle, and explain to the students that the red candle is to remind us about the lesson of the day, which is about the virtue of patience. "Wait your turn and respect others with patience." Thus we light the candle and relate several personal examplesof how we, the teachers, wait our turn and show respect for others.

The children introduce themselves to each other giving their names, ages, details about their parents and siblings, tell each other about their family life, where they were born, what are their favorite toys and games, what their home is like, how they feel, what are their dreams and hopes, and what they would like to do in this new school.

When a child speaks everyone listens without interrupting; all wait their turn. We can use a bottle or a wooden object, which must be held in order for anyone to speak. When any child takes hold of this object, he or she is asked to repeat what the previous child just said.

The teachers explain to them important rules about how to treat each other and their teachers with respect, and why these rules are important for their creativity and security. The children are then shown the facilities, bathrooms, classrooms, workshops, play areas, etc. and the school limits, beyond which they should never stray. The home room, and other teachers, shall enforce these rules for all the children. Children who cannot, or will not, follow the rules will have to leave SEE, if counseling with the child and its parents by the home room teachers and the school counselor cannot remedy the situation, and help the child become more cooperative for its own welfare and safety as well as for the mutual welfare and safety of all the students at the school.

At the end of this session, we ask each child to take a small glass, with its name on it, put water into the glass, and then drink it. This is their first exercise of the "Brain Gym".

8:30 AM - 9:30 AM: The studies and all the activities of the day are integrated so that the child knows what it will be doing and why. Children who wish to follow a different path will be encouraged to do so. After consulting with the child, the home room teachers are obligated to accommodate the elections of each child and try to arrange the child's day so as to maximize the child's creativity, keeping the child in safety, and not imposing any activities on the child.

During this period the children are introduced to ethics and why we have an obligation to never do anything to harm anyone, including ourselves, why we should always try to do

our best to increase our own creativity and the creativity of everyone with whom we interact. The concept of "creativity" is discussed with all the students, and they give their own opinions on the subject.

The child is introduced in very simple terms to what is creativity and what is harm. The concepts of harm and creativity are discussed by the teachers with all the children in each circle. The children are introduced to the concept of patience, and why we should always wait for our turn. They are taught how to show respect for each other, their teachers, their parents, their siblings, and everyone else.

These lessons are combined with free drawing, painting, and simple songs. The children are taught about the themes they will be studying during the day in physical, biological, psychosocial sciences, as well their integration through ethics, humanities and art. The themes of fire, water, air, earth, the human body, the school, the home, the family, our neighbors, positive and negative emotions, the sun, colors, ego, and ecology are all touched upon and integrated with the sciences, ethics, humanities, and art. This process will continue during all future days of study at SEE, except the discussions shall become more sophisticated and comprehensive.

The children sing the simple integrative song(s) they have learned. They go to the school garden or other nature area to gather twigs and sticks with which they will learn how to make simple pencils in a workshop with white and black sheets of papers, files with which to turn the twigs and sticks into pencils and styli, carbon, and powdered chalk with which they will write on the white and black papers respectively, after dipping their pencils in water.

After having discussions with the students about how to discover making pencils and drawing with the materials at hand, they will experiment with the materials and try drawing something related to what has been discussed. They will then gather the materials, clean their work areas, and recall the songs that they learned earlier. Finally they will put away their creations in their private cubby holes.

9:30 AM - 10:30 AM: The children will then go to the history section of the general purpose room. Here each child will tell its own personal history.

Videos and pictures of how children develop in their mother's womb and then grow into mature adults shall be given. Later in the year, the children will learn how to use computers and the Internet to learn on their own. The cultural and biological evolution of the human species shall be touched upon. The evolution of the family as the basic unit of evolution shall be briefly discussed. A short story about family life with grandparents,

parents, and children shall be told and discussed. The concept of society as an extended family shall be discussed.

Questions and discussions with the students shall ensue about how they were born, and where; how they grew; where have they lived; with whom; what experiences and memories do they have of their own family life; when did they live these experiences? Materials will be provided to express these histories and personal experiences. They will express this as best they can, and the teachers will write a narration to accompany each individual expression.

The teachers will then explain the history of the lever and how the lever evolved from simple branches found in nature to all the complex tools of today. Videos and pictures will be shown and examples will be given with demonstrations of how we use the concept of the lever. Stories about the evolution of the lever will be told by the teachers.

The teachers will then ask the students, collectively and individually, questions about the importance of the lever and its history. The students will be given material to express this history.

10:30 AM - 11:00 AM: Snack Time. First the students wash their hands and are told about germs and why it is important to wash your hands before eating. They then take a snack break in which the students learn to prepare a healthy snack of fruit and fruit juice. The fruit juice maker will be noted as an example of the use of the lever. The students will be able to experiment with trying to extract fruit juice with and without the fruit juice maker, and see how important the lever is in this application.

The older students will learn to use dull metal knives to prepare the fruit. The younger students will work with play wooden knives. In addition to the fruit, the students will also be given whole grain crackers and nuts.

The students learn about the health benefits of different fruits. They learn about vitamin C in citrus fruits, and how fruits give us fiber and other nutrients which are important to good health.

The ethical obligation of maintaining good health will be discussed with the student. The ethical obligation of never decreasing anyone's health, including our own, is also discussed.

The students will be asked what kind of fruit and other food they most like, and what they would like to eat the next day. An effort will be made to give the students the food they most like, which is consistent with good nutrition and good health.

11:00 AM - 11:30 AM: Recess. Free play in playground or garden, with jungle-gym, sandbox, tires, toys that can be pulled and pushed, slides, swings and teeter-totters to illustrate the use of the lever.

11:30 AM - 12 Noon: Story time. Stories for the students, according to their interests, about the origin of the universe and the evolution of the elements in the stars; about the family; the seasons; the sun; prehistory and paleolithic events; fantasies illustrating the concepts of cause and effect; and science vignettes. After listening to the stories the students wash their hands and are told again why it is always important to wash their hands before eating. The ethics of cleanliness is discussed.

12 Noon - 12:30 PM: The students are served a prepared healthy lunch with salad, cereal, whole grain breads, vegetables, fruit, vegetable juice, and/water. Each student gets his toothbrush from his cubby hole and is encouraged to brush his teeth, with help, if necessary.

Biological Orientations Begin

12:30 PM - 1:00 PM: Play Centers. Make a circle and do a moment of silence and calm. Choose a place to be silent and calm in the circle or in the general purpose room. Pay attention to what can be heard outside, inside the school, inside the general purpose room, inside your own body. Exchange comments on what was heard - an airplane, a car, laughter, voices, your breathing, your own heart, your stomach grumbling, etc.

Each child shares with the rest what they would like to do in the play centers. The teachers take notes on what each child expresses, to help the children integrate their play with the lessons of the day, and show the child how their play contributes to or detracts from their creativity.

1:00 PM - 2:00 PM: Free play. They play at whatever they wish without interruptions, but under the close supervision of their teachers, who will keep notes on the activities of the students, and later use them for optimizing the student's individualized curriculum, such that the student's creativity shall be maximized. The teachers should never, unnecessarily interfere with the child's voluntary play. The only interruption which is permitted is that which is necessary to protect the safety of the student, or the other children. If the children are willing, and it seems appropriate, the teachers may participate in the play of the children. The following play centers will be available to the students.

Water Play: Body sensations within the cold or warm water; care with rapid changes when they are wet; no touching of electrical appliances or cables when the body is wet;

care of not breathing in water while in the pool or other water facility; benefits of drinking a lot of water; benefits of bathing or showering every day.

Sandbox Play: Covering different parts of the body with sand; care of not getting sand in eyes, ears, nose, or mouth; making holes, tunnels and sand castles.

Outside Play: Use of the body with different movements; lying down, dragging the body, crawling, sitting, kneeling, walking, running, jumping, vaulting, dancing, and other movements; care with not falling or causing others to fall, as form of protecting our creativity and that of others.

Reading Center: Illustrated books and encyclopedias about the human body and its care.

House or Store Play: Nutrition for the body; cooking in the play kitchen; gathering nutritious food in the play store; what does my body need; what do I need to eat; resting in the play bedroom; why do we need to rest; cleaning the store, house, and bath rooms; washing food before eating; silence and the need for sleep; personal hygiene; care of our clothes.

Costumes and Make-up Play: Make-up for different parts of the face; importance of cleanliness and not getting make-up in the eyes or mouth; costumes for different parts of the body; cleaning face, teeth, ears, nose, etc.

2:00 PM - 2:30 PM: Meeting with other play and study groups. Each group has at least two students, but not more than twelve students. Cleaning and ordering the general purpose and dining rooms is done. Each group shares its experiences with the other groups. Discussion of discoveries, ideas, and insights.

2:30 PM - 3:00 PM: Snack break with healthy food. Raw vegetables, whole grain bread, vegetable juice, pure water - discussion while eating about the healthy way to eat, and our ethical obligation to maintain our health in order to become maximally creative.

3:00 PM - 4:00 PM: Rest time. On comfortable mattresses with quilted covers, the students take naps or remain quiet and calm, while listening to soft soothing music, cradle songs by the teachers, and are generally communicated love and affection by the teachers.

Students who cannot sleep or are restless can discuss the activities of the day among themselves or with their teachers, or go to see an appropriate children's film or video covering the concepts of cause and effect, body care, the lever, and other themes from the day. Speculations about changing the history of the world, and our own personal history.

Discussions about patience, school, home life, body care, nutrition, simple songs, drawing, plastic arts, and the virtues of simple silence and rest.

4:00 PM - 5:00 PM Sports and Other Physical Activity. Cooperative Sports emphasizing cooperation between students rather than competition. Emphasis on personal improvement in whatever we do rather than being better than someone else. Activities are chosen by individual students. Activities include martial arts, nature walks, bicycle rides, team and individual sports such as basketball with light ball, softball, soccer, skating, gymnastics, swimming, relay races, etc.

5:00 PM - 5:30 PM: Plastic Arts. Various plastic arts tables are set up for drawing with pencils, thick crayons, and water colors and brushes. Also tables for cutting and pasting patterns, clay modeling, and other plastic arts. Children exchange art works as their parents come to pick them up.

5:30 PM - 6:30 PM Children who wish it continue to work on plastic art projects of their choosing or engage in supervised free play of their choosing, while waiting to be picked up by their parents. All children must be picked-up no later than 6:30 PM.

Parents are given home work and asked to give their children various photographs of their family to be brought to school the next day and used to relate their personal history. Children may also bring their personal tricycle or bicycle the next day.

THE SECOND DAY OF SCHOOL

7:00 AM - 8:00 AM: Children enter the all purpose room and find the same environment as on the first day. Their identification bracelets are put on their wrists or they may choose an identification badge that they may decorate as they wish with thick crayons. They engage in play of their choice until the beginning of the first period at 8:00 AM.

8:00 AM - 8:30 AM: With the music or bell of the previous day, the children sit in their morning circle, and the red candle, symbolizing patience, is lit. There is a collective discussion of how successful the children were in waiting their turn, and their complaints about the children who did not wait their turn. We discuss on how better to treat one another with patience and respect. The dynamics of the discussion circle are discussed.

Afterwards the children are asked to listen in silence to the music CALVERIA RUSTICANA of Pietro Mascagni. At the same time they will try to locate appropriate art work on the walls.

They will then try to imagine a story associated with the music and try to draw an appropriate artistic expression of that story. When they finish the expression of the story

they will listen to the music once more. The next day they will discuss their art works and stories. Later in the week they will be told the story of the music of CALVERIA RUSTICANA, and eventually they will be shown the entire opera on video.

Note: This work serves to concentrate the attention of the students. More will be said of this later.

8:30 AM - 9:30 AM: We continue with the lessons in physical science of the previous day on cause and effect and the history and use of the lever. If the weather permits and the children are willing we go outside into the garden and begin making a compost pile for our organic garden, all the time illustrating the use of the lever.

The children put on gardening smocks and get, for their personal use, small shovels as well as larger shovels; potting soil; natural fertilizer; leaves; hay; green plants; kitchen waste; and water. If the garden is large, the compost pile may be made in bins or large wooden boxes.

The children will place in their compost piles first a layer of soil, then a layer of fertilizer, then the green vegetation, then they wet it all down with plenty of water. In placing the subsequent layers, they are asked to do it alternately with the shorter or the longer shovels, or with their hands. We ask them if they can tell the difference? How does the principle of the lever help us move the material for the compost pile?

Explain to the children how a shovel is an example of a simple lever, and how it helps us do heavy work. Ask the children to give other examples of levers and how they help us.

After wetting down the compost piles we cover them with dark plastic to keep in the heat. We tell the children about how important it is to keep turning over the compost piles at least once per week, and how useful it is to have a shovel with which to do this.

The children now wash their hands, brush their nails with soap and a proper nail brush, and when they are clean they form a new circle. The children are then told a story about cause and effect. Examples of these stories are:

a) A real story about the cause of impatience and not waiting your turn on the health and emotional well-being of other children, and how this decreases their creativity.

b) Or a story about how being patient and waiting your turn helps produce positive emotions in others and helps us produce harmony, good communication, gratitude, love and maximize both our creativity and that of others.

c) Stories about fantasies from Walt Disney or Hans Christian Anderson which involve cause and effect relationships, clearly showing the relationships of the causes to their

effects.

d) Science fiction stories about space travel which involves cause and effect relationships.

We always try to emphasize that everything we do is a cause for an effect: everything we think, feel, say, or do always has an effect on us, others, or the world at large. It is always important that we pay attention to what we are doing, saying, thinking, or feeling in order not to hurt others or yourself. Why we must be careful and treat others and ourselves with respect.

9:30 AM - 10:30 AM: Mathematics and Biology. We take the children to the mathematics center which has been prepared by the teachers to help the students observe, investigate, and/or play with the following concepts: the pink tower of Maria Montessori, the big and small of toy vehicles and dolls, plasticine of various colors, mathematical drawing books using thick crayons, posters of the human body of adults and children, images and photographs of the human body and of small and large objects, illustrated story books about the human body and small and large objects, puzzles and toys about the human body allowing comparisons between large and small objects, a large mirror.

The students have at least 15 minutes to explore freely all the previously mentioned materials. Then the teachers will invite the children to participate in several exercises to more fully understand the materials. For example: how to use the Montessori tower; how to order the toy vehicles and dolls by increasing size; make small and large spheres with the plasticine and order them by size, color, and geometry; seek out the largest and smallest objects in the classroom; imagine a small, a large, and a medium sized set of objects that are not here, draw the objects in your notebook with crayons; observe the posters and images of the human body then look at yourself in the mirror; which parts of your body are the largest, which are the smallest, which are the same size as other parts of your body; how are the different parts of the students' bodies becoming larger?

At the end of each time exercise each student will work on the three times of Maria Montessori:is this large, medium, or small, which is largest, smallest, or medium; point out the smallest, largest, and medium objects; which is this particular object?

The children then go to wash their hands and go on to their snack.

10:30 AM - 11:00 AM: Snack Time. The same as the snack process of the first day of school.

11:00 AM - 11:30 AM: Recess. The same as the day before, emphasizing the concepts of large and small during play, for example, look at how large you seem on the jungle gym,

look at how small your smallest friend is, etc.

11:30 AM - 12 Noon: Story Time. The children wash their hands and come into the classroom. They find many stories about fantasies, space travel, voyages around the world, poetry, literature, fables, story books solely with illustration and no words, etc.

The children lie down or sit on the cushions and quilts where they can cover themselves, if they wish. Here they will read and observe the stories that are read to them.

The teachers come close to the students to ask them what they think the stories are about, and if they can repeat the story to the teacher. The teacher should allow the student to tell the story in his or her own way, without correcting the student. Later the teachers can tell the story as it actually is to the students, and ask the students: Which story do you like most, the one you told me or the one I told you? Tell the student that both stories are fine. Help the student feel secure in their imagination and their intuition.

12:00 Noon - 12:30 PM: Lunch. A healthy lunch as in the previous day after washing hands and going over the need for good hygiene in order to maintain good health, and become maximally creative in our own life, without ever decreasing the creativity of another.

Psychosocial Learning Centers

12:30 PM - 1:00 PM: Exercise of Silence. We are going to make a lot of noise with our hands by clapping, with our feet by stomping on the floor, with our voices by yelling, etc. When you hear the drum or the bell we must become absolutely silent. You should hear nothing but the silence.

The silent period should be longer than the noise period so that the children may relax and learn that silence can bring us interior peace. We then ask the students: What do you feel when there is a lot of noise? What do you feel when you listen to the silence? When do you feel best?

We then discuss with the students the concepts of planning and projection.

1:00 PM - 1:30 PM: Free, spontaneous play for the children as in the previous day, where the children are observed, but not interfered with, except for the sake of their safety.

1:30 PM - 2:30 PM: Key Experience, How to communicate, The exchange of information. The children form themselves into study groups of their choosing with at least two students, but not more than twelve students. If the children choose to change groups they give their reasons for doing so to the other students. We will eventually discuss with the

students how well they learn in different groups of different sizes. The children then go to their personally and collectively chosen study centers. The study centers are as follows:

ART: drawing with crayons, chalk, thick pens, pencils, etc. to communicate an idea or a feeling to others; painting with small brushes and water colors; sculpting with clay, play dough, and plasticine;the children exchange their art works and discuss them with one another.

MUSIC: the children make music, as best they can, with play instruments at hand; or they choose a song to sing to communicate something important to others; they explain the meaning of their music or song to the rest of the students.

THEATER: They invent a play or skit using solely facial expressions and gestures but no words to communicate something important; others invent a play or skit using words and gestures; the plays and skits are presented to the other students and discussed among all the groups. This as well as the other activities may extend into the future week or weeks.

WATER: Communicating through the use of movements and sounds in water.

SAND: Communication with sand through sand structures.

PLAY HOUSE OR STORE: Communication at home or in the store playing father, mother, siblings, store keeper, customers, etc. How does television interrupt our ability to communicate? How do the telephone and the computer help and interfere with our communication? Communicate while playing store selling, buying, sorting, displaying, etc. How are communication and education related?

CONSTRUCTION: Use construction materials of the previous day such as wooden blocks, Leggos, Tinker Toys, etc. to build two play cities with various means of communication such as, bridges, roads, highways, radios, telephones, offices, businesses, and so on. Exchange ideas with other groups for bettering communication within your play city.

OUTSIDE PLAY OR BODY EXPRESSION: How do we communicate with our body without speaking. Do Charades. Experiment with new types of expressive movements. Try to understand and imitate the body movements of others.

READING CENTER: Communicating through stories and personal histories. Interchange information telling one another the stories we read with words or pictures.

COSTUMES AND MAKE-UP: The same as with the theater above, changing our appearance to reflect different personalities. How can we use these techniques to engage

in two way communications? How does our appearance communicate how we feel?

2:30 PM - 3:00 PM: Snack Time. Healthy snacks of fruits, vegetables, whole grains, and nuts with a discussion of good nutrition and good health, as in the day before. How do we communicate to others the principles of good nutrition and good health?

3:00 PM - 4:00 PM: Rest and Sleep as in the previous day. In the videos and films for the children who do not wish to rest or are restless we emphasize the concepts of large, small and medium, spheres, and communication.

4:00 PM - 5:00 PM: Physical sports of the student's choosing as in the previous day, under close supervision so that the students do not hurt themselves or one another.

5:00 PM - 6:30 PM: The activities of the day are integrated by music and song while the parents come to pick up their children. All the children must be picked up no later than 6:30 PM.

These activities continue in the same spirit for the following weeks and years until the full Life Time Curriculum for the first three years is covered for the nursery school children. If there is sufficient interest, and it is economically feasible, the following ten years of the Life Time Curriculum will be added, one year at a time, so that some children will be able to maximize their creativity, instead of having it destroyed in the traditional school systems which dominate the education of all children throughout the world.

This curriculum and educational philosophy is explained in detail in literature available from SEE, and in the free seminars available from SEE for interested parents and educators. Also go to our website at www.see.org

As of early 2000, the sole SEE school established for very young children has been in Valle de Bravo, Mexico. It was established by Gabriela and Salvador Espinosa as an adjunct to a public rural school for very poor children. These children blossomed and became much more creative than all the other equally poor children in the many other comparable schools in the region.

SEE is currently focusing its time, energy and resources in training teachers for its educational programs. There is no charge for this training. Whenever the teachers are available, SEE will set-up a school, wherever there is enough interest from parents and students to make the school feasible.